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### **EFFORTS IN DECREASING THE NUMBER OF TUBERCULOSIS PATIENTS BASED ON THE ANALYSIS OF STAFF CHARACTERISTIC AND PROGRAM MANAGEMENT FACTORS**

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The prevalence of Tuberculosis (TB) patients in Lumajang increased by 25.06 per 100.000 people from year of 2007 to 2011. The increase number of prevalence of TB patients in Lumajang showed that the number of TB patients got higher so that the morbidity level of public health in Lumajang got lower. Therefore, an effort is needed to reduce the number of TB patients in Lumajang. The objective of this study was to arrange efforts in decreasing the number of TB patients based on the results of analysis on staff characteristic and program management factor in Lumajang Regency. This research is an analytical observational study, conducted by analyzing; the staff characteristic factor including the working period and the perception of staff and the factor of Community Health Centers management, including planning, organizing, actuating, and controlling of TB patient decreasing. This study took place in selected Community Health Centers which are the sub-ordinate of Health Department in Lumajang Regency. The study was conducted from February to March 2012. The population of this study was 25 Community Health Centers in Lumajang Regency and the sample was 21 selected Community Health Centers by using proportional stratified random sampling technique. The data was analyzed using SPSS 16.0 software. Then, a multiple regression analysis was done. The result of this analysis became the strategic issue. The result shows that staff characteristic factors (working period and the perception of staff) significantly play role in decreasing the TB patients at Community Health Centers in Lumajang Regency ( $p < 0.05$ ). So do program management factors (planning, organizing, actuating and controlling) – they have important role in decreasing TB patients at Community Health Centers in Lumajang Regency ( $p < 0.05$ ). Indeed, program management is inseparable related process. Every single management program factor may affect one another.

**Keywords:** Tuberculosis, Staff Characteristic Factor, Program Management Factor, POAC

## **1. INTRODUCTION**

Tuberculosis (TB) is one of diseases that has become a problem in health. Since, the situation of tuberculosis in the world has been worst, it needs to decrease the number of illness. Accordingly one of indicators on TB counter measure program in Community Health Center is the effort of decreasing TB patients. The increasing number prevalence of TB patients in Lumajang shows that the number of TB patients and illness have been increasing. In other words, the health degree of society in Lumajang has been decreasing. Therefore, it needs an effort to decrease the number of TB patients in Lumajang. The prevalence number of TB patients from 2007 to 2011 are presented on the following table:

Table 1. The Prevelence Number of TB Patients (BTA+) in Lumajang in 2007 to 2011

Year	People Number	Case Number of TB (Old+New)	Prevelence Number of TB (per 100.000 people)
2007	1.029.644	854	82.94
2008	1.038.358	982	94.57
2009	1.046.412	1.089	104.1
2010	1.053.425	1.105	104.9
2011	1.053.403	1.138	108

Source: Lumajang Regency Profile, 2007-2011.

The figure above shows that from 2007 to 2011 the prevalence number of TB has been increased by 25.06 per 100.000 people in Lumajang Regency. Community Health Centers plays a pivotal role for public health in decreasing the number TB patients. The research was aimed to decrease the number of TB patients through the analysis of two factors; the staff characteristic and the TB program management in Community Health Centers in Lumajang.

## 2. RESEARCH METHODOLOGY

This is a quantitative research. It is an analytical observational research conducted by analyzing the staff characteristic factors including working period as well as staff perception, and the management factors in the Community Health Centers involving planning, organizing, actuating, and controlling of decreasing TB patients. The research took place in chosen Community Health Centers in Lumajang which are the sub-ordinate of Health Department in Lumajang Regency. The period of the research was in February to March in 2012. The population of the research are 25 Community Health Centers in Lumajang. The sample of the research employs 21 chosen Community Health Centers by applying proportional stratified random sampling technique.

All the above-mentioned variables worked with some sub-variables among others: Planning (planning process, planning content), Organizing (work division, resource allocation, coordination, Actuating (promotion, prevention, reward provision, listing and reporting) and Controlling (monitoring, evaluation, feedback).

A descriptive analysis is used to find the frequency distribution on each variable. The next step is a multiple regression test with SPSS 16.0 software– it is to know the effect of the independent and the dependent variables. The result of test is analyzed and formulated into strategic issue material. Further, this strategic issue is presented for study purpose in Focus Group Discussion (FGD) involving Community Health Centers and Lumajang Health Department. The result of FGD may be used to complete broader research discussion material.

## 3. RESULT AND DISCUSSION

### 3.1. Staff Characteristics (Working Period and Staff Perception)

The result of the research shows that most of the staff (33.33%) has worked to serve TB patient for about 10 to 15 years. This is not a short period of time. They have spent relatively long time as TB staff. Robbins and Timothy (2008a) state that someone who works longer in a certain job and experience can be either more productive or otherwise. Accordingly, the working period of staff in handling TB program for a long time may influence the effort to decrease the number of TB patients in Community Health Centers in Lumajang.

Eleven TB staffs (52.38%) have a perception that the higher the number of new founded TB patients, the better the performance of the TB staffs is. The increasing number of TB patients should

be balanced with the effort of prevention and treatment for TB patients. So, the number of TB patients can decrease every year.

### **3.2. Management Factors in Decreasing the Number of TB Patients in Community Health Centers in Lumajang**

Management factors to decrease the number TB patients in Lumajang regency consisted of **Planning, Organizing, Actuating** and **Controlling**. Planning plays a pivotal role in management. According to Terry (2006) that planning organizes activities to conduct through resources owned to reach the target. Unsuccessful planning will affect failure of decreasing the number of TB patients.

Based on the research result, out of 21 samples of Community Health Centers only 10 of them (47.62%) applied planning to decrease the number of TB patient. In other words, more Community Health Centers did not apply the indicator of planning process. Another 10 Community Health Centers applied organizing with good category. Thus, this affected the effort of decreasing the number of TB patients in the Community Health Centers. Terry (2006) suggested that organizing means basic resources are united in an organized way and managed to reach the target.

In general, 9 (42.86%) out of 21 Community Health Centers applied actuating process in a good category. It indicated that actuating to decrease TB patients in Community Health Centers in Lumajang is not yet optimized and needs improvement. Thus, in practice promotion, prevention, reward provision and listing and reporting are desperately needed.

In addition, according to Jati & Sucipto (2006)—through their research in Community Health Centers in Grobogan, Central Java, in 2003--collaboration with another sector plays a pivotal role in actuating. Both suggested that the absence of collaboration will negatively affect the decrease of TB patients.

Based on the research result on monitoring, evaluation, and feedback, most controlling activities to decrease the number of TB patients in Lumajang showed good category. However, 5 (23.81%) Community Health Centers applied controlling with fair category. Thus, it is not yet optimized. Terry (2006) added that controlling is conducted to explore and to evaluate the prominent mistakes of result found from a planned activity.

Nevertheless, Suharjana, Kristiani & Laksono (2005) stated that minimal monitoring will likely influence the result of TB patient decreasing activity. This is in line with the research of Jati & Sucipto (2006) dealing with monitoring and evaluation.

### **3.3. The Effect of Staff Characteristic in Decreasing the Number of TB Patients in Community Health Centers in Lumajang in 2012**

The result of statistic test shows that staff characteristic factor (working period and staff perception) significantly affects the number of TB patient decreasing in Lumajang Regency as presented on the Table 2.

Table 2. The influence of Working Period and Staff Perception Towards the Decreasing of TB Patients in Community Health Centers in Lumajang in 2012

Staff Characteristic Factor		Beta	p
<i>Independen</i>	<i>Dependen</i>		
Working Period	Decreasing TB patients in Community Health Centers	0,553	0,005
Perception	Decreasing TB patients in Community Health Centers	0,454	0,019

Table 2 shows that working period variable influence positively toward decreasing TB patients variable in Community Health Centers with value  $p=0.005$ , ( $p<0.05$ ). It implies that the longer the working period, the greater the number of decreasing TB patient. This is in line with the explanation of Robbins and Timothy (2008a) who states that the staff who experience more in an office, they may be possibly productive and vice versa.

So do staff perception variable – it also influence positively towards the decreasing of TB patients variable with value  $p=0.019$ , ( $p<0.05$ ). It indicates that if all staff perception are all the same in decreasing the number of TB patients, so the number of decreasing TB patients get higher. However, it should be followed by the effort of prevention and treatment that the number of TB patients get lower each year.

### **3.4. The Effect of Program Management Factors in Decreasing the Number of TB Patients in Community Health Centers in Lumajang in 2012**

Management factor in decreasing TB patient consist of planning (P), organizing (O), actuating (A), controlling (C). Terry (2006) explained that those management factors are chained process. For that reason the application of the factor should be related one another, for that reason in identifying the influence of TB program management toward the effort of decreasing the number of TB patients in Community Health Centers.

TB patients is identified by applying multiple regression test. The result of the tes is presented on the following table.

Table 3. The Influence of Program Management Factors Toward The Decreasing of TB Patients in Community Health Centers in Lumajang in 2012

Management Factors in Decreasing TB Patients		Beta	p
<i>Independent</i>	<i>Dependent</i>		
<i>Planning</i>	Decreasing TB patients in Community Health Centers	0,376	0,001
<i>Organizing</i>	Decreasing TB patients in Community Health Centers	0,317	0,001
<i>Actuating</i>	Decreasing TB patients in Community Health Centers	0,664	0,001
<i>Controlling</i>	Decreasing TB patients in Community Health Centers	0,319	0,001

Table 3, shows that all management factors; Planning (P), Organizing (O), Actuating (A) and Controlling (C) showed the same p value of value  $p=0.001$ , ( $p<0.05$ ) which means good results. Based on the above table (multiple regression test), the management factors are intertwined. Each of them influences one another and inseparable. The factors play an important role in decreasing TB patients in Community Health Centers. Hence, management factors play as a cycled process comprising planning (P), organizing (O), actuating (A) and controlling (C).

### **3.5. The Effort in Decreasing The Number of TB Patients Based on The Result of Staff Characteristic and Program Management Factors in Community Health Centers in Lumajang Regency**

Three steps in arranging the effort issue are: formulating strategic issue; conducting Focus Group Discussion (FGD); continued by analyze the gained result that lead to the following recommendation. The recommendation to decrease the number of TB patients in Lumajang Regency include:

1. Increasing planning in decreasing the number of TB patients in Community Health Centers, by: a) Making a daily notes and obstacles during the TB program, b) Giving the target of

- improvement for promotion activity every year to meet the target considering the decreasing strategy is passive case decreasing with active promotion along with promotion media (brochures or interesting posters);
2. Increasing organizing in decreasing the number of TB patients in Community Health Centers by: a) Policy by the Health Department to set a special team in Community Health Centers in decreasing the number of TB patients, b) Notice for the Head of Community Health Centers to apply the inter-sector coordination because it is important in achieving the program target, c) Improvement in applying controlling from the Regency Health Department in the form of monitoring and evaluation to the Community Health Centers to apply inter-sector coordination every three months;
  3. Improving actuating in decreasing the number of TB patients in Community Health Centers, by that: the Head of Community Health Centers should give reward to the staff financially and non-financially because it is important to motivate the staff performance.

#### 4. CONCLUSION

In a nutshell, it is concluded that:

- a. Staff characteristic which consist of working period and staff perception gives a positive influence toward decreasing of TB patients in Community Health Centers in Lumajang Regency ( $p < 0.05$ ).
- b. Program management factors which consist of planning, organizing, actuating and controlling is a chained process. It connects and affect one another. Management factor influence the decreasing of TB patients significantly ( $p < 0.05$ ). Management is a process that starts from planning, continued by organizing and actuating and controlling as the last process according to which planning process is restarted for the next cycle.
- c. The effort arrangement of decreasing the number of TB patients is based on the result of staff characteristic and program management factors analysis in Community Health Centers in Lumajang Regency. There are 3 steps in arranging the effort issue are: formulating strategic issue; conducting Focus Group Discussion (FGD); continued by analyze the gained result that lead to the following recommendation. The recommendation to decreasing the number of TB patients in Lumajang Regency include : 1) Increasing planning in decreasing the number of TB patients in Community Health Centers, by: a) Making a daily notes and obstacles during the TB program, b) Giving the target of improvement for promotion activity every year to meet the target considering the decreasing strategy is passive case decreasing with active promotion along with promotion media (brochures or interesting posters); 2) Increasing organizing in decreasing the number of TB patients in Community Health Centers by: a) Policy by the Health Department to set a special team in Community Health Centers in decreasing the number of TB patients, b) Notice for the Head of Community Health Centers to apply the inter-sector coordination because it is important in achieving the program target, c) Improvement in applying controlling from the Regency Health Department in the form of monitoring and evaluation to the Community Health Centers to apply inter-sector coordination every three months; 3) Improving actuating in decreasing the number of TB patients in Community Health Centers, by that: the Head of Community Health Centers should give reward to the staff financially and non-financially because it is important to motivate the staff performance.

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